

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

RECEIVED

JUN 21 2005

BROMBERG & SUNSTEIN

SCANSOFT, INC.,

Plaintiff,

v.

C.A. No. 04-10353-PBS

VOICE SIGNAL

TECHNOLOGIES, INC.,

LAURENCE S. GILLICK,

ROBERT S. ROTH,

JONATHAN P. YAMRON,

and MANFRED G. GRABHERR,

Defendants.

PRESUMED CONFIDENTIAL UNTIL 7/6/2005
PURSUANT TO PROTECTIVE ORDER

ORIGINAL

DEPOSITION OF MANFRED G. GRABHERR, Ph.D., a
witness called by and on behalf of the Plaintiffs,
taken pursuant to the applicable provisions of the
Federal Rules of Civil Procedure, before Dana Welch,
CSR, Registered Professional Reporter, and Notary
Public, in and for the Commonwealth of Massachusetts,
at the offices of Bromberg & Sunstein, 125 Summer
Street, Boston, Massachusetts, on June 16, 2005,
commencing at 10:04 a.m.

1 APPEARANCES:

2 For the Defendants:

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6

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1 P R O C E E D I N G S

2 (The Massachusetts Driver's License
3 number as identification of the deponent
4 was noted for the record.)

5 WHEREUPON,

6 MANFRED G. GRABHERR,
7 having duly sworn or affirmed that his
8 testimony would be the truth, the whole truth,
9 and nothing but the truth, testified as
10 follows:

11 DIRECT EXAMINATION

12 BY MS. FLEMING:

13 Q. Would you state your name for the
14 record please and spell it.

15 A. My name is Manfred Gernot Grabherr.
16 It's M-A-N-F-R-E-D, G-E-R-N-O-T,
17 G-R-A-B-H-E-R-R.

18 Q. And that's Dr. Grabherr, right?

19 A. Yes.

20 Q. Dr. Grabherr, I would like for you to
21 tell me about your educational background after
22 high school and with your collegiate studies.

23 A. I studied physics at the Technische
24 Universitat Wien, which is the University of

1 proprietary.

2 BY MS. FLEMING:

3 Q. And is it your testimony that the
4 specific implementation was not confidential?

5 MR. POPEO: I object to the form of the
6 question. If you understand that question,
7 you may answer.

8 THE DEPONENT: So is the question
9 whether the specific implementation was
10 proprietary information?

11 BY MS. FLEMING:

12 Q. Yes.

13 MR. POPEO: Slow down. Are you asking
14 whether he was aware of a proprietary
15 implementation?

16 BY MS. FLEMING:

17 Q. Did you understand my question?

18 A. Can you say it again, please.

19 MS. FLEMING: Sure can you read it
20 back.

21 THE REPORTER: "Question: 'And is it
22 your testimony that the specific
23 implementation was not confidential?'"

24 MR. POPEO: Objection.

1 THE DEPONENT: No. I can't say that it
2 was not confidential.

3 BY MS. FLEMING:

4 Q. Can you say it was confidential?

5 MR. POPEO: Were you informed that it
6 was confidential?

7 MS. FLEMING: Mr. Popeo, stop running
8 this deposition or we will terminate it and
9 go to the judge.

10 THE DEPONENT: Sorry. Say it again,
11 please.

12 MS. FLEMING: Can you read the question
13 back?

14 THE REPORTER: "Question: 'Can you say
15 it was confidential?'"

16 THE DEPONENT: I can't remember a
17 single case in which I could say this is
18 definitely confidential.

19 BY MS. FLEMING:

20 Q. Well, tell me about what you developed
21 at Voice Signal -- I'm sorry -- at Lernout &
22 Hauspie that you're not sure was confidential.

23 MR. POPEO: He's testified he's not
24 sure anything was confidential.

1 BY MS. FLEMING:

2 Q. I'll agree with you there.

3 A. -- and you have many different modules
4 or pieces of this thing. And each of them
5 wants to get memory.

6 So you can not easily do something like
7 say, oh, I'm going to make this one change and
8 I will drop the memory usage by, I don't know,
9 50 percent. So usually that's not the way this
10 works. You have all these different things and
11 each of one allocates, let's say one megabyte
12 of memory. And if you can get this
13 one megabyte down to 0.8 megabyte, that's good.
14 Then you go on to the next thing, which uses 2
15 megabytes; you get it down to 1.8 megabytes.
16 But it all adds up. So then you have to go
17 back and say, well, this still needs too much
18 memory, so maybe we can do something else. We
19 have to, I don't know, look for other ways.

20 Q. And so you would agree with me then
21 that a desired goal of the work in speech
22 recognition would be to reduce memory and at
23 the same time increase accuracy; is that an
24 accurate statement?

1 MR. POPEO: Object to the form of the
2 question. Compound. Are you asking for
3 him to generalize?

4 BY MS. FLEMING:

5 Q. Do you understand the question?

6 MR. POPEO: Or at Lernout & Hauspie?

7 BY MS. FLEMING:

8 Q. Do you understand the question, sir?

9 A. So you're asking about speech
10 recognition in general?

11 Q. Yes.

12 A. Yes. That would be the goal, to have
13 something that uses virtually no memory, is
14 infinitely accurate, and doesn't use CPU
15 resources. But in the real world -- I mean,
16 one would like that, right.

17 Q. So in terms of the minor modification
18 that you made when you were at Lernout &
19 Hauspie to the short list, that would be
20 considered an improvement, wouldn't it?

21 MR. POPEO: Object to the form.

22 THE DEPONENT: Yeah. It's an
23 improvement.

24 MR. POPEO: Let's take our first break.

1 We've been going over an hour.

2 (Proceedings interrupted at 11:04 a.m.
3 and reconvened at 11:14 a.m.)

4 BY MS. FLEMING:

5 Q. Dr. Grabherr, before the break, you
6 were describing for me some of the work that
7 you did at Lernout & Hauspie in connection with
8 short lists. Do you recall that?

9 A. Yes.

10 Q. And I would like to refer you back to
11 Exhibit 2 you have in front of you and ask you
12 to look at page VST 03742.

13 A. Yes.

14 Q. And again, I'm going to refer you to
15 paragraph 8 of that agreement. And that
16 paragraph does say that "During your employment
17 with the company," that being Voice Signal,
18 correct?

19 A. Yes.

20 Q. "You will not improperly use or
21 disclose any confidential information or trade
22 secrets by any former employer."

23 A. That's what it says.

24 Q. And it's your understanding that when

1 MR. POPEO: Whether or not -- the
2 nature of the communications that I've had
3 with my client are not a topic of discovery
4 or discussion today.

5 MS. FLEMING: You're disclosing on the
6 record now that you will produce that
7 document on the basis that it's relevant?

8 MR. POPEO: If the document exists, I
9 will determine whether it does exist, and
10 if so, if it responds to any discovery in
11 the case, then we will produce it.

12 BY MS. FLEMING:

13 Q. Dr. Grabherr, do you recall the
14 substance of the agreement that you signed with
15 Kurzweil?

16 MR. POPEO: Objection. You can answer,
17 if you can.

18 THE DEPONENT: I don't remember.

19 BY MS. FLEMING:

20 Q. Was it an employment agreement?

21 A. It was an employment agreement.

22 Q. Did it offer you employment?

23 A. I don't remember what the document
24 said.

1 Q. Did it contain any obligations to keep
2 information confidential that you obtained in
3 your employment with Kurzweil?

4 MR. POPEO: Objection. Only if you
5 remember.

6 THE DEPONENT: I don't remember.

7 BY MS. FLEMING:

8 Q. You don't remember?

9 A. I don't remember any specific things
10 about this document.

11 Q. You don't remember if you were under
12 any obligations to keep information
13 confidential while you worked at Kurtzweil?

14 MR. POPEO: That wasn't the question.
15 That's a different question. You can
16 answer that question, if you know the
17 answer to it.

18 THE DEPONENT: It very much depends on,
19 you know, what the document says and what
20 the wording is. I assume that there was
21 something in there that --

22 MR. POPEO: Just what you remember,
23 please.

24

1 couldn't recognize?

2 A. So there is in Voice Xpress, you had
3 the ability to define a vocabulary. And within
4 this vocabulary, you could tell it, well, you
5 can recognize this word only if the preceding
6 word is either this or that or another word.
7 So you could constrain it, that not all word
8 combinations were possible.

9 But in order to do that, you have to
10 first figure out what are all these
11 constraints. And then you have to tell it to
12 explicitly in its own internal representation
13 what it could recognize and what not.

14 Q. And how do you do that in speech
15 recognition; do you use mathematical models to
16 do that?

17 MR. POPEO: Objection. How did he, in
18 fact, do it at L&H?

19 MS. FLEMING: No. I'm asking how did
20 he do it in speech recognition.

21 MR. POPEO: If you can generalize, you
22 can answer the question.

23 MS. FLEMING: Mr. Popeo, I really would
24 instruct you not to use speaking

1 objections. You know it's a violation of
2 the rules. You're entitled to put an
3 objection on the record. You're slowing
4 down and impeding this deposition and you
5 need to stop before we have to take a break
6 and call the court. It's inappropriate
7 conduct. You need to stop doing that, Mr.
8 Popeo.

9 MR. POPEO: I don't agree with your
10 assessment.

11 MS. FLEMING: Please state your
12 objection on the record and let me ask my
13 questions.

14 MR. POPEO: I've done so.

15 BY MS. FLEMING:

16 Q. Did you understand my question?

17 A. Yes.

18 Q. Could you please answer the question?

19 A. I'm sorry. But can you just before,
20 repeat the question?

21 MS. FLEMING: Please read the question
22 back.

23 THE REPORTER: "Question: 'And how do
24 you do that in speech recognition; do you

1 point became known as ELVIS. And I don't know
2 exactly when it made the transition from just
3 being a recognizer to being ELVIS.

4 Q. Okay. And what language model was used
5 in the ELVIS technology that you're aware of
6 from October of 2000 to October of 2001?

7 MR. POPEO: I object the form of
8 question. You may answer -- you may
9 answer --

10 MS. FLEMING: Mr. Popeo, please.

11 MR. POPEO: You may answer if you can
12 do so without divulging any Voice Signal
13 trade secret. With that instruction, you
14 can go ahead.

15 THE DEPONENT: Sorry. The question
16 again, please?

17 THE REPORTER: "Question: 'Okay. And
18 what language model was used in the ELVIS
19 technology that you're aware of from
20 October of 2000 to October of 2001?'"

21 THE DEPONENT: This kind of a language
22 model was the just straightforward thing
23 that's published, that stores probabilities
24 for words and word translations.

1 BY MS. FLEMING:

2 Q. And what is that language model, sir;
3 can you describe it for me?

4 A. At what level?

5 Q. Any level you want.

6 A. I can't really say anything about the
7 specific implementation without disclosing
8 Voice Signal secrets, I believe. But on a more
9 general level, the thing that was being used,
10 again, for each word in your vocabulary, you
11 store this one probability that says how likely
12 is it to just stand all by itself, be
13 recognized all by itself. And as soon as you
14 have the context, then you can look up what is
15 the probability between these two things.

16 Q. And how did the language model in the
17 early ELVIS project do that, determine the
18 probability?

19 MR. POPEO: Object to the form of the
20 question.

21 THE DEPONENT: Determine the
22 probabilities --

23 MR. POPEO: Object to the form of the
24 question. But you may answer if your

1 answer will not disclose a Voice Signal
2 trade secret.

3 MS. FLEMING: Let me just stop here for
4 a moment if I can. Mr. Popeo, do I
5 understand that you're instructing the
6 witness not to disclose information that
7 related to work that he did in the first
8 year of his employment at Voice Signal
9 Technologies?

10 MR. POPEO: That wasn't my instruction.

11 MS. FLEMING: What's your instruction
12 just so that I'm clear.

13 MR. POPEO: Sure. So we're all clear.
14 The witness is free to testify about the
15 work that he performed during the first 12
16 months after he was hired by Voice Signal.
17 My only limiting instruction is that he not
18 disclose during the course of this
19 deposition a trade secret of Voice Signal.
20 It's nothing more complex than that.

21 MS. FLEMING: All right. I'd like to
22 take a five-minute break.

23 (Proceedings interrupted at 11:53 a.m.
24 and reconvened at 12:05 p.m.)

1 believe was proprietary.

2 BY MS. FLEMING:

3 Q. And is it your testimony that the
4 storage of language models at Lernout & Hauspie
5 was not proprietary to Lernout & Hauspie?

6 A. I don't think -- it was not
7 proprietary.

8 Q. You think it was proprietary?

9 A. No. I think it was not proprietary.

10 Q. So I just want to be clear that I
11 understand your testimony, that the way that
12 Voice Signal Technologies, as you understand
13 it, stored its language models was proprietary,
14 but the way that Lernout & Hauspie stored its
15 language models was not; is that your
16 testimony?

17 A. Yes.

18 MR. POPEO: Objection.

19 THE DEPONENT: Because it's different.

20 BY MS. FLEMING:

21 Q. Why is it different?

22 MR. POPEO: You can answer the question
23 without talking about Voice Signal's
24 methodology.

1 MS. FLEMING: Excuse me. Mr. Popeo,
2 have you just instructed the witness not to
3 talk about Voice Signal's technology with
4 respect to language models in the first
5 year of employment of Mr. Grabherr?

6 MR. POPEO: I'm just reminding him not
7 to disclose trade secrets of Voice Signal.
8 But you can answer the question.

9 THE DEPONENT: Okay. So --

10 MS. FLEMING: You're reminding him not
11 to disclose trade secrets within the first
12 year of his employment; is that -- am I
13 understanding your instruction?

14 MR. POPEO: The witness may be capable
15 of answering the question without
16 disclosing trade secrets.

17 MS. FLEMING: No. Is your instruction
18 that he not disclose trade secrets during
19 the first year of his employment at Voice
20 Signal Technologies; Is that your
21 instruction, Mr. Popeo?

22 MR. POPEO: My instruction to the
23 witness and general instruction is that he
24 not disclose trade secrets as a general

1 matter.

2 MS. FLEMING: Despite the Court's order
3 in this case?

4 MR. POPEO: I'm not aware of any court
5 order that says that we ought to be
6 disclosing trade secrets.

7 THE DEPONENT: I think I can answer the
8 question without disclosing confidential
9 information.

10 So you have to keep in mind that these
11 recognizers are really intended for very
12 different purposes.

13 BY MS. FLEMING:

14 Q. What recognizers?

15 A. So on one hand, you have L&H Voice
16 Xpress, and also later on, the Phoenix
17 recognizer, and the intention there was to run
18 in a -- in an environment in which you have an
19 operating system, you have file storage of some
20 sort, you have a pretty fast processor and you
21 have a lot of memory.

22 Now, on the other hand, if you look at
23 the ELVIS recognizer, that was designed to run
24 on embedded systems such as cell phones, where

1 Q. Okay. I'd ask you just to focus on the
2 first sentence here and ask you, what work did
3 you specifically do to research and develop
4 robust speech interfaces to mobile and embedded
5 products at Voice Signal Technologies?

6 MR. POPEO: Object to the form of the
7 question. You can answer. Please restrict
8 your answer to the first 12 months after
9 you were hired and don't disclose Voice
10 Signal trade secrets in the process.

11 THE DEPONENT: So the question is what
12 project was I working on; is that correct?

13 BY MS. FLEMING:

14 Q. No. The question is a little bit more
15 specific than that. What work did you do to
16 research and develop robust speech interfaces
17 to mobile and embedded products?

18 MR. POPEO: Same objection. You can
19 answer.

20 THE DEPONENT: Okay. Yeah, when I
21 started working for Voice Signal, there
22 were a number of things Voice Signal wanted
23 to do and all of them were for embedded
24 applications.

1 you know, you may answer the question.

2 THE DEPONENT: One of them I remember
3 is Jim McGinnis.

4 BY MS. FLEMING:

5 Q. Tim?

6 A. Jim. M-C-G-I-N-N-I-S. I hope that's
7 the proper spelling. And for the more
8 technical questions, we also had embedded
9 engineers help us; but those I don't remember
10 specifically.

11 Q. Okay. And can you tell me what your --
12 specifically what your work was on this team?

13 A. So my work on this team was to
14 contribute to the design process and also
15 implement certain parts.

16 Q. Okay. Let take each of those tasks
17 that you just described. What did you do
18 specifically to contribute to the design
19 process of the recognizer?

20 MR. POPEO: Objection. Please restrain
21 yourself to the first 12 months after you
22 were hired and please don't disclose any
23 trade secrets.

24 THE DEPONENT: I don't remember the

1 BY MS. FLEMING:

2 Q. Sure. When you worked on this team and
3 you were part of this team, was it your
4 understanding that you were developing -- well,
5 in fact, you said you were developing a speech
6 recognizer, correct?

7 A. Yes.

8 Q. And you were contributing to the design
9 process of that speech recognizer, correct?

10 A. Yes.

11 Q. And as part of your contributions to
12 the design process, did you understand that the
13 information you were developing was
14 confidential to Voice Signal Technologies?

15 A. Yes. That was my understanding, right.

16 Q. And what information in particular was
17 confidential if you can recall?

18 MR. POPEO: I object to the form of the
19 question. If you can answer the question
20 without divulging the confidential
21 information itself, you can do so.

22 THE DEPONENT: Well, a lot of it is,
23 well, how do you actually make this run in
24 very little memory. So rather than --

1 there are two ways to approach this. And
2 one is to start with something that's big
3 and make it small; and the other one is
4 start with something that's supposed to be
5 small in the beginning. And the second way
6 is usually what works much better.

7 So a lot of this means you have to
8 structure things in certain ways so that
9 you keep one part of information here and
10 another part of the information there.
11 Because the hope is that, you know, if you
12 also have to distinguish between memory
13 you can write to and memory you cannot
14 write to. And you don't want to keep
15 anything you don't -- are not going to
16 modify in memory you can write to because
17 that's precious. And so that requires you
18 to structure this in a certain way.

19 BY MS. FLEMING:

20 Q. What way?

21 MR. POPEO: Objection. Again, if you
22 can answer the question without divulging
23 trade secrets, you may do so. But please
24 don't describe a trade secret.

1 make it go faster?

2 MR. POPEO: Object to the form. You
3 may answer the question, but please don't
4 divulge a trade secret when you do so.

5 THE DEPONENT: No. I'm just using this
6 as an example. So I'm not saying this is
7 one of the particular problems.

8 BY MS. FLEMING:

9 Q. Let me ask you a question, sir. In
10 forming your answer to this question and the
11 previous two questions, have you -- is part of
12 your answer based on confidential information
13 that you have not disclosed to me?

14 MR. POPEO: Object to the form of the
15 question. If you understand it, you can
16 answer it.

17 THE DEPONENT: Well, a lot of it has to
18 do with the fact that I just can't remember
19 the specifics of what we did. I mean, if
20 you ask me -- if you tell me now, show me
21 the source code and say, oh, okay.

22 BY MS. FLEMING:

23 Q. If I showed you the source code?

24 A. If you showed me the source code and

1 tell me, well, this is the way you did it, I
2 would say yes, now I remember. But out of the
3 top of my head, I just don't remember these
4 things because they're very -- sometimes very
5 small details.

6 Q. Sure. So without looking at the source
7 code, you can't recall what the specific
8 contributions were this team made in the early
9 speech recognition engine that was being
10 developed as part of this team that you just
11 testified about?

12 MR. POPEO: Object to the form of the
13 question. It mischaracterizes. You can
14 answer the question if you can.

15 THE DEPONENT: And one thing that I
16 remember is that we went through each
17 possible data structure and tried to figure
18 out how can we organize this such that it
19 takes up the least amount of memory.

20 BY MS. FLEMING:

21 Q. And do you recall what techniques you
22 came up with?

23 MR. POPEO: Object to the form. Again,
24 if you can answer the question without

1 divulging a trade secret you may do so.

2 BY MS. FLEMING:

3 Q. Can you answer that question with
4 divulging a trade secret?

5 MR. POPEO: In other words, if you're
6 remembering a trade secret --

7 MS. FLEMING: Excuse me, sir; it's my
8 question.

9 THE DEPONENT: No, I understand. No, I
10 don't think I could.

11 BY MS. FLEMING:

12 Q. You can't answer that question with or
13 without confidential information?

14 A. Right.

15 MS. FLEMING: Okay. Can you read me
16 back the question?

17 THE REPORTER: "Question: 'And do you
18 recall what techniques you came up with?'"

19 BY MS. FLEMING:

20 Q. Why can't you answer that question?

21 A. Because I simply don't remember. I
22 mean, see, these are very detailed things that
23 we did.

24 Q. And you can't remember unless you

1 A. Right.

2 Q. -- both speech recognition engines
3 needed a module in the source code to search
4 the lexical tree, didn't it?

5 MR. POPEO: Object to the form of the
6 question.

7 THE DEPONENT: I mean, again, on a very
8 general -- in a very general way, that's
9 true, but that's true for pretty much any
10 recognizer out there.

11 BY MS. FLEMING:

12 Q. But both of those recognizers required,
13 in fact, some module in the source code to
14 search the lexical tree; is that right?

15 MR. POPEO: Objection to the form of
16 the question.

17 THE DEPONENT: Since they're both
18 HMM-based systems, like pretty much all
19 other systems that do a similar job, sure.

20 BY MS. FLEMING:

21 Q. Sure. And you testified that you wrote
22 the code for the module that searched the
23 lexical tree at Voice Signal Technologies,
24 correct?

1 A. Yes.

2 Q. Now, the next module --

3 MR. POPEO: Let's take a break before
4 we move on to the next module.

5 MS. FLEMING: Do you need a break, sir?

6 MR. POPEO: I need a break.

7 (Proceedings interrupted at 2:48 p.m.
8 and reconvened at 2:57 p.m.)

9 BY MS. FLEMING:

10 Q. Dr. Grabherr, before your counsel asked
11 for a break, I was asking you about certain
12 modules and the source code that you wrote for
13 the ELVIS product, do you remember that
14 testimony -- or the ELVIS prototype; do you
15 remember that testimony?

16 A. Yes.

17 Q. And you identified four modules. And I
18 wanted to ask you about the one that you
19 characterized as a module to ask for acoustic
20 scores; do you remember that description that
21 you gave?

22 A. Yes.

23 Q. Can you describe for me what the
24 purpose of that module is in the source code?

1 remember, the way it works is --

2 MR. POPEO: And again, I caution you
3 not to disclose any trade secrets.

4 THE DEPONENT: So my recollection is
5 that after you compute the scores, what you
6 do in the search is you want to add them up
7 over time to get an accumulated score for a
8 whole hypothesis. Right. And now, from
9 time to time you might decide to just, you
10 know, remove the bottom of the score.

11 So if the scores are 1,005, 1,010,
12 1,015, it's the same as, I don't know, 2,
13 5, 15; so the thousands don't matter
14 because you only compare hypotheses against
15 each other. Whether I did that or not, I
16 don't remember.

17 BY MS. FLEMING:

18 Q. Now, in the answer that you just stated
19 for the record, did you withhold any trade
20 secret information from your answer?

21 MR. POPEO: Object to the form. You
22 can answer, if you can.

23 THE DEPONENT: No, I don't think so.

24

1 BY MS. FLEMING:

2 Q. Yes.

3 A. Okay. No, there is not.

4 Q. So ELVIS does not use duration
5 modeling?

6 A. It does use duration modeling, but it
7 does not use a certain probability assigned to
8 whether it's better to stay within a state or
9 transition to another state.

10 Q. Why not?

11 MR. POPEO: Object to the form of the
12 question. You may answer, if you can do so
13 without divulging a trade secret.

14 THE DEPONENT: I don't know.

15 BY MS. FLEMING:

16 Q. You don't know or you can't divulge it
17 without involving a trade secret?

18 A. I don't know. I don't think it helps
19 much with the recognition process. This is
20 just something that people tried to increase
21 accuracy and I don't know how much that helps
22 at all, if it helps at all.

23 Q. Whether it helps or not, does the ELVIS
24 prototype use that type of duration modeling?

1 MR. POPEO: Objection. Asked and
2 answered.

3 THE DEPONENT: No.

4 BY MS. FLEMING:

5 Q. It doesn't?

6 A. It doesn't.

7 Q. But it uses duration modeling?

8 MR. POPEO: Objection.

9 THE DEPONENT: Yes. That's what the
10 hidden Markov model is all about.

11 BY MS. FLEMING:

12 Q. How did the ELVIS prototype model
13 duration?

14 MR. POPEO: Object to the form of the
15 question. You can answer, if you can
16 without divulging trade secrets.

17 THE DEPONENT: This is the process that
18 I just described.

19 BY MS. FLEMING:

20 Q. And the process you just described --

21 A. It's the basic --

22 MR. POPEO: Generic.

23 THE DEPONENT: Well, it's the way in
24 which hidden Markov models work. And these

1 year, I don't remember.

2 BY MS. FLEMING:

3 Q. Okay. And you would agree with me that
4 this e-mail is dated within the first year of
5 your employment at Voice Signal Technologies,
6 wouldn't you?

7 A. Yes.

8 Q. And your testimony is you don't have
9 any recollection of attending a such a meeting?

10 MR. POPEO: Objection. Asked and
11 answered. If you recall, you recall; if
12 you don't recall, you should say so.

13 THE DEPONENT: I don't remember.

14 BY MS. FLEMING:

15 Q. Putting aside the contents of this
16 e-mail, did you communicate to Mr. Gillick any
17 novel technical characteristics in the current
18 implementation of ELVIS?

19 MR. POPEO: If you recall, please.

20 THE DEPONENT: I don't remember.

21 BY MS. FLEMING:

22 Q. Do you recall communicating to Mr.
23 Gillick any novel ideas that would be important
24 contributions to ELVIS?

1 MR. POPEO: Objection. Only if you
2 recall, please.

3 THE DEPONENT: I don't remember.

4 BY MS. FLEMING:

5 Q.

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9 MR. POPEO: Objection.

10 THE DEPONENT: I don't remember.

11 BY MS. FLEMING:

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15 MR. POPEO: Object to the form of the
16 question.

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1 it's still there.

2 BY MS. FLEMING:

3 Q. And personal digital assistants have
4 technology for flash as well, don't they?

5 MR. POPEO: Object to the form of the
6 question. You may answer it, if you know.

7 THE DEPONENT: I don't know.

8 BY MS. FLEMING:

9 Q. Mini computer?

10 A. Mini computers?

11 MR. POPEO: Same objection.

12 BY MS. FLEMING:

13 Q. You don't know what a mini computer is?

14 A. No.

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20 MR. POPEO: Objection.

21 THE DEPONENT: That's what I believe,
22 yeah.

23 BY MS. FLEMING:

24 Q. On what do you base that belief?

1 C E R T I F I C A T E

2 I, Manfred G. Grabherr, Ph.D., do hereby
3 certify that I have read the foregoing
4 transcript of my testimony, given on June 16,
5 2005, and I further certify that said
6 transcript is a true and accurate record of
7 said testimony (with the exception of the
8 corrections listed below):

9 Page Line Correction

10

11

12

13

14

15 Dated at _____, this _____
16 day of _____, 2005.

17

18

Manfred G. Grabherr

19 SIGNED UNDER THE PAINS AND PENALTIES OF PERJURY

20

21

22

23 duw

24

CERTIFICATE

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, SS

I, Dana Welch, Registered Professional
Reporter and Notary Public in and for the
Commonwealth of Massachusetts, do hereby
certify:

That MANFRED G. GRABHERR, the witness
whose deposition is hereinbefore set forth, was
duly sworn by me and that such deposition is a
true record of my stenotype notes taken in the
foregoing matter, to the best of my knowledge,
skill and ability.

IN WITNESS WHEREOF, I have hereunto set
my hand this 16th day of June, 2005.

DANA ULRICH WELCH

Dana Welch, RPR

Registered Professional Reporter